INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Dave Allen

September 17, 2002

C&M Conveyor
4598 State Road 37,
Mitchell, IN 47446

Re: Registered Construction and Operation Status,
093-16060-00029

Dear Dave Allen:

The application from C&M Conveyor, received on September 09, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following automated conveyor (used in corrugated paper industry) manufacturing source, located at 4598 State Road 37, Mitchell, IN 47446, is classified as registered:

(a) two (2) surface coating booths, identified as 'Front Paint Room' constructed in 1989 and 'Back Paint Room' constructed in 1994 using electrostatic air atomized spray guns, each with a maximum production rate of 1826 units per hour, using dry filters to control emissions and exhausting through stacks 1 and 2.

(b) seven (7) natural gas fired space heater, rated at less than 0.25 million British thermal units (MMBtu) per hour used for heating the building.

(c) one (1) natural gas fired air curtain, rated as less than 1 million British thermal units (MMBtu) per hour.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

Pursuant to 6-3-2 (d) the following shall be applicable:

(a) Particulate from the surface coating processes shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

(b) If overspray is visibly detected at the exhaust or accumulates on the ground, the

Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for a period of five (5) years.

2. Pursuant to 326 IAC 8-2-1 (a) (4), the Permittee shall use no greater than fifteen (15) pounds per day of VOC for the coating operation in the 'back paint room'. This limit makes the 326 IAC 8-2-9 not applicable to this booth. The permittee shall maintain the record of VOC usage at this booth for a period of five (5) years to show that actual emissions are less than the limit in this condition.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

GS

cc: File – Lawrence County
Lawrence County Health Department
Air Compliance – Ray Schick
Permit Tracking – Sara Cloe
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak
Office of Enforcement

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3)

Company Name:	**C&M Conveyor**
Address:	**4598 State Road 37,**
City:	**Mitchell, IN 47446**
Authorized individual:	**Tim Grissom**
Phone #:	**(812) 849-5647 ext. 242**
Registration #:	**R 093-16060-00029**

I hereby certify that C&M Conveyor is still in operation and is in compliance with the requirements of Registration 093-16060-00029.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	**C&M Conveyor**
Source Location:	**4598 State Road 37, Mitchell, IN 47446**
County:	**Lawrence**
SIC Code:	**3535**
Permit No.:	**093-16060-00029**
Permit Reviewer:	**Gurinder Saini**

The Office of Air Quality (OAQ) has reviewed an application from C&M Conveyor relating to the construction and operation of an automated conveyor (used in corrugated paper industry) manufacturing source.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

(a) two (2) surface coating booths, identified as 'Front Paint Room' constructed in 1989 and 'Back Paint Room' constructed in 1994 using electrostatic air atomized spray guns, each with a maximum production rate of 1826 units per hour, using dry filters to control emissions and exhausting through stacks 1 and 2.

(b) seven (7) natural gas fired space heater, rated at less than 0.25 million British thermal units (MMBtu) per hour used for heating the building.

(c) one (1) natural gas fired air curtain, rated as less than 1 million British thermal units (MMBtu) per hour.

Existing Approvals

This is the first air approval for this source.

Enforcement Issue

(a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment.*

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
1	Front spray booth	22	4	20,000	Ambient
2	Rear spray booth	6.4	2	7,000	Ambient

Recommendation

The staff recommends to the Commissioner that the ***construction and operation*** be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on September 09, 2002.

Emission Calculations

See Appendix A page 1 through 4 of this document for detailed emissions calculations.

Potential To Emit of Source before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	1.41
PM-10	1.47
SO_2	0.01
VOC	14.52
CO	0.89
NO_x	1.06

HAPs	Potential To Emit (tons/year)
Xylene	8.32
Combined HAPs	14.16

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and

Emission Offset applicability.

County Attainment Status

The source is located in Lawrence County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lawrence County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Lawrence County has been classified as attainment or unclassifiable for other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.41
PM10	1.47
SO_2	0.01
VOC	14.52
CO	0.89
NO_x	1.06

(a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lawrence County and the potential to emit of VOC is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of surface coating booths will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

Particulate from the surface coating processes shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for a period of five (5) years.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The front paint room construction of which was commenced before November 1, 1980 has potential VOC emissions less than 25 tons per year. Therefore pursuant to 326 IAC 8-2-1 (a) (2), this spray booth is not subject to the requirements of 326 IAC 8-2-9.

The applicant has agreed to limit the actual VOC emissions from the back paint room, construction of which began after July 1, 1990, to less than 15 pounds per day. Therefore pursuant to 326 IAC 8-2-1 (a) (4), this spray booth is not subject to the requirements of 326 IAC 8-2-9.

The applicant shall maintain records of the VOC usage at the back paint room to show that the emissions are compliant with the above limitation. These records must be maintained for a period of five (5) years.

Conclusion

The construction and operation of this automated conveyor (used in corrugated paper industry) manufacturing source shall be subject to the conditions of the attached proposed Registration 093-16060-00029**.**

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: C&M Conveyor
Address City IN Zip: 4598 State Road 37, Mitchell, IN 47446
CP: 093-16060
Plt ID: 093-00029
Reviewer: GS
Date: September 13, 2002

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Paint (Front)	7.8	63.00%	0.0%	63.0%	0.0%	37.00%	0.00012	1826.000	4.94	4.94	1.08	25.97	4.74	0.70	13.35	75%
Lacquer Thinner (F)	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.00003	1826.000	6.92	6.92	0.38	9.10	1.66	0.00		0%
Cleaning Solvent (F)	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.00003	1826.000	6.92	6.92	0.38	9.10	1.66	0.00		0%
Paint (Rear)	7.8	63.00%	0.0%	63.0%	0.0%	37.00%	0.00012	1826.000	4.94	4.94	1.08	25.97	4.74	0.70	13.35	75%
Lacquer Thinner (R)	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.00003	1826.000	6.90	6.90	0.38	9.07	1.66	0.00		0%
Cleaning Solvent (R)	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.00003	1826.000	6.90	6.90	0.38	9.07	1.66	0.00		

State Potential Emissions **Add worst case coating to all solvents** **3.30** **79.22** **14.46** **1.39**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: C&M Conveyor
Address City IN Zip: 4598 State Road 37, Mitchell, IN 47446
CP#: 093-16060
Plt ID: 093-00029
Permit Reviewer: GS
Date: September 13, 2002

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Ethylbenzene	Weight % MIBK	Weight % MEK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	MIBK Emissions (ton/yr)	MEK Emissions (ton/yr)
Paint (Front)	7.8	0.00012	1826.000	50.00%	0.00%	10.00%	0.00%	0.00%	3.76	0.00	0.75	0.00	0.00
Lacquer Thinner (F)	6.9	0.00003	1826.000	12.00%	45.00%	2.30%	15.00%	3.00%	0.20	0.75	0.04	0.25	0.05
Cleaning Solvent (F)	6.9	0.00003	1826.000	12.00%	45.00%	2.30%	15.00%	3.00%	0.20	0.75	0.04	0.25	0.05
Paint (Rear)	7.8	0.00012	1826.000	50.00%	0.00%	10.00%	0.00%	0.00%	3.76	0.00	0.75	0.00	0.00
Lacquer Thinner (R)	6.9	0.00003	1826.000	12.00%	45.00%	2.30%	15.00%	3.00%	0.20	0.75	0.04	0.25	0.05
Cleaning Solvent (R)	6.9	0.00003	1826.000	12.00%	45.00%	2.30%	15.00%	3.00%	0.20	0.75	0.04	0.25	0.05

Potential HAP Emissions (tons per year)	**8.32**	**2.98**	**1.66**	**0.99**	**0.20**

Total combined HAPs emissions (tons per year) **14.16**

MIBK = methyl iso butyl ketone, MEK = methyl ethyl ketone

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
7 natural gas fired space heater and 1 natural gas fired air curtain

Company Name: **C&M Conveyor**
Address City IN Zip: **4598 State Road 37, Mitchell, IN 47446**
CP: **093-16060**
Plt ID: **093-00029**
Reviewer: **GS**
Date: **September 13, 2002**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.4	21.3

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	1.1	0.1	0.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Appendix A: Emissions Calculations
Summary of emissions from page 1 and 2 of App A

Company Name: **C&M Conveyor**
Address City IN Zip: **4598 State Road 37, Mitchell, IN 47446**
CP: **093-16060**
Plt ID: **093-00029**
Reviewer: **GS**
Date: **September 13, 2002**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.4	21.3

Criteria Pollutant emissions

Units	Potential to Emit (tons per year)					
	PM*	PM10*	SO2	NOx	VOC	CO
Front and Rear Surface Coating booths	1.39	1.39	-	-	14.46	-
7 NG fired Space Heaters and 1 Air Curtain	0.02	0.08	0.01	1.06	0.06	0.89
Totals	1.41	1.47	0.01	1.06	14.52	0.89

HAP Emissions

Units	Potential to Emit (tons per year)	
	Single HAP (Xylene	Combined HAPs
Front and Rear Surface Coating booths	8.32	14.16
Totals	8.32	14.16